Conclusions

The Delta region will continue to play a critical role in U.S. energy operations. The opportunity to construct an oil refinery facility that utilizes the best available technology and control equipment within the DRA region will help the nation achieve a sustainable and competitive economy in the global marketplace and assure that the DRA region continues to build upon their competitive advantages to create high quality jobs, attract new investment, and broaden the tax base of states and communities.

Based on the Level I, II, III and IV evaluation factors, nine of the 240 counties and parishes in the DRA region have been identified as meeting the general evaluation criteria for an oil refinery facility. The counties and parishes, in alphabetical order, are as follows:

- Bolivar County, Mississippi;
- Chicot County, Arkansas;
- East Carroll Parish, Louisiana;
- Leflore County, Mississippi;
- Panola County, Mississippi;
- Pike County, Mississippi;
- Richland Parish, Louisiana;
- St. James Parish, Louisiana; and
- Washington County, Mississippi.

Each of these counties and parishes has characteristics that are important locational attributes for a new oil refinery facility. There are large acreage tracts available for development that are a sufficient distance from population concentrations, reasonable proximity to petroleum pipelines, highways and power generation plants. Many of these nine counties and parishes have river port facilities that are equipped to handle petroleum products or ports with the necessary land base to expand their operations in order to provide the required services for a refinery at or near the port facility.

If the assessment of locating a suitable site for a new oil refinery facility moves forward, detailed information showing actual pipeline locations should be secured from the National Pipeline Management System and specific geographic locations of these pipelines within these counties and

parishes should be developed. Additional environmental site data should be considered in future evaluations to utilize new technologies and advanced control devices that will reduce environmental effects from an oil refinery facility. There are also important economic development opportunities that can result from developing a dynamic business recruiting strategy, which identifies companies that can benefit from being adjacent to, or near an oil refinery facility and thus bringing additional jobs and tax base to the DRA region.

If this site selection moves forward, a detailed feasibility report should be completed to further evaluate industry conditions, develop detailed site evaluations, identify community issues and impacts, consider incentives and public-private partnership options, conduct detailed economic analysis, and further evaluate environmental considerations. The feasibility report should identify relative costs and potential benefits of the sites included in this evaluation.

While the criteria for identifying a location for a new oil refinery in the DRA region have been documented in this report, there are other advantages that could play a significant major role in the location of an oil refinery facility in the DRA region. They are as follows:

- Availability of raw water resources for processing operations;
- Workforce training facilities and resources to provide training and upgrade training for skilled refinery workers;
- Access to machine tool fabrication businesses, maintenance and repair contractors, and related support businesses to maintain refining facilities;
- Proximity to major consumer markets and businesses utilizing a range of petroleum products that can be produced within the refinery;
- Access to technology and research facilities to facilitate "best available technologies" usage in the refinery;
- Potential for expedited permitting to significantly reduce the time and expense of securing required permits for construction and operation of the refinery;
- Opportunities to capture and store CO_2 to enhance oil recovery in existing oil fields or store in geologic formations to reduce emissions from the refinery. This technology has potential for reducing greenhouse gas emissions and improving air quality;
- Access to hydrogen pipelines to expand options for utilization of high sulfur fuels and related strategies to increase profitability of the oil refinery facility; and
- Availability of federal and state incentives.

Site Selection and Identification Factors

...for an oil refinery facility

It is clear there is a significant demand for new refineries and major oil refinery expansions to meet future U.S. and global requirements for petroleum products. The DRA region is home to a significant number of the nation's oil reserves and refining facilities. These facilities require major oil related infrastructure, such as major crude oil trunk lines and transportation networks, to ensure products can be efficiently produced and transported across the country. Due to the existing infrastructure and the other factors evaluated in this report, these nine counties and parishes in the DRA region are potential locations to construct a new oil refinery facility.

Appendix A

Level I – Fatal Flaw Factors

Eliminated Counties and Parishes

A total of 185 counties and parishes eliminated in the Level I review

Alabama Counties

1. Barbour
2. Bullock
3. Butler
4. Choctaw
5. Clarke
6. Conecuh
7. Dallas
8. Escambia
9. Greene
10. Hale
11. Lowndes
12. Macon
13. Marengo
14. Monroe
15. Russell
16. Sumter
17. Perry
18. Pickens
19. Washington
20. Wilcox

Arkansas Counties

1. Arkansas
2. Ashley
3. Baxter
4. Clay
5. Craighead
6. Crittenden
7. Cross
8. Drew
9. Greene
10. Independence
11. Jefferson
12. Lawrence
13. Lee
14. Marion
15. Monroe
16. Mississippi
17. Ouachita
18. Phillips
19. Poinsett
20. Prairie
21. Pulaski
22. Randolph
23. Searcy
24. Sharp
25. St. Francis
26. Stone
27. Union
28. Van Buren
29. White
30. Woodruff

Illinois Counties

1. Alexander
2. Gallatin
3. Hardin
4. Jackson
5. Johnson
6. Massac
7. Pope
8. Pulaski
9. Randolph
10. Saline
11. Union
12. Williamson

Kentucky Counties

1. Ballard
2. Caldwell
3. Carlisle
4. Christian
5. Crittenden
6. Fulton
7. Graves
8. Hickman
9. Hopkins
10. Livingston
11. Lyon
12. Marshall
13. McCracken
14. Muhlenberg
15. Trigg
16. Union

Louisiana Parishes

1. Acadia
2. Allen
3. Ascension
4. Assumption
5. Avoyelles
6. Caldwell
7. Catahoula
8. Concordia
9. East Baton Rouge
10. East Feliciana
11. Evangeline
12. Grant
13. Iberia
14. Iberville
15. Jefferson
16. Lafourche
17. La Salle
18. Livingston
19. Madison
20. Morehouse
21. Natchitoches
22. Orleans
23. Ouachita
24. Plaquemines
25. Pointe Coupee
26. Rapides
27. St. Bernard
28. St. Charles
29. St. Helena
30. St. John the Baptist
31. St. Landry
32. St. Martin
33. Tangipahoa
34. Washington
35. West Feliciana
36. West Baton Rouge
37. Winn
38. Union

Mississippi Counties

1. Adams
2. Amite
3. Benton
4. Claiborne
5. Copiah
6. Covington
7. Desoto
8. Franklin
9. Grenada
10. Hinds
11. Issaquena
12. Jefferson
13. Jefferson Davis
14. Lafayette
15. Lawrence
16. Lincoln
17. Madison
18. Marion
19. Marshall
20. Rankin
21. Sharkey
22. Simpson
23. Tallahatchie
24. Tate
25. Tunica
26. Union
27. Walthall
28. Warren
29. Wilkinson
30. Yalobusha
31. Yazoo

Missouri Counties

1. Butler
2. Carter
3. Crawford
4. Dent
5. Douglas
6. Dunklin
7. Howell
8. Iron
9. Madison
10. Mississippi
11. New Madrid
12. Oregon
13. Ozark
14. Pemiscot
15. Phelps
16. Reynolds
17. Ripley
18. Scott
19. Shannon
20. Ste. Genevieve
21. Stoddard
22. Texas
23. Washington
24. Wayne

Tennessee Counties

1. Benton
2. Crockett
3. Dyer
4. Fayette
5. Gibson
6. Haywood
7. Henderson
8. Henry
9. Lake
10. Lauderdale
11. Obion
12. Shelby
13. Tipton
14. Weakly

Appendix B

Level II – Environmentally Sensitive Area Factors

Eliminated Counties and Parishes

A total of 20 counties and parishes eliminated in the Level II review

Arkansas Counties

1. Bradley
2. Dallas
3. Lincoln

Illinois Counties

1. Franklin
2. Hamilton

Kentucky Counties

1. Calloway

Louisiana Parishes

1. Jackson
2. Lincoln
3. Tenas

Mississippi Counties

1. Attala
2. Holmes
3. Quitman
4. Tippah

Missouri Counties

1. Cape Girardeau

Tennessee Counties

1. Chester
2. Decatur
3. Hardeman
4. Hardin
5. Madison
6. McNairy

Appendix C

Level III – Infrastructure Factors

Eliminated Counties and Parishes

A total of 25 counties and parishes eliminated in the Level III review

Arkansas Counties

1. Calhoun
2. Cleveland
3. Desha
4. Fulton
5. Grant
6. Izard
7. Jackson
8. Lonoke

Illinois Counties

1. Perry
2. White

Kentucky Counties

1. Henderson
2. McLean
3. Todd
4. Webster

Louisiana Parishes

1. Franklin
2. West Carroll

Mississippi Counties

1. Carroll
2. Coahoma
3. Humphreys
4. Montgomery

Missouri Counties

1. Bollinger
2. Perry
3. St. Francois
4. Wright

Tennessee Counties

1. Carroll

Appendix D

Level IV – Community Factors

Eliminated Counties and Parishes

A total of 1 county eliminated in the Level IV review

Mississippi Counties

1. Sunflower County

Appendix E

Information from the "Criteria Air Pollutant Report"

Mississippi, Louisiana, and Arkansas

State of Mississippi

I. There are only six counties in Mississippi with person-days exceeding National Ambient Air Quality Standards (NAAQS); none of those counties are within the final evaluation region.

II. Only five counties in the final evaluation region–Warren, Bolivar, Leflore, Panola, and Sunflower–ranked in the top 25 counties for VOC emissions. Ultimately, sites within counties with VOC emissions issues may require additional pollution control requirements for both existing industries and the proposed facility. New technologies and state-of-the-art pollution control equipment should be evaluated.

III. Four counties in the final evaluation region–Warren, Washington, Bolivar, and Panola–were ranked in the top 18 counties for nitrogen oxide emissions and ozone season daily averages. Ultimately, sites within counties with nitrogen oxide emissions issues may require additional pollution control requirements for both existing industries and the proposed facility. New technologies and state-of-the-art pollution control equipment should be evaluated.

IV. Only one industrial facility was identified in the PM-10 emissions rankings within the final evaluation region, a company in Warren County. Ultimately, Warren County was eliminated from further consideration; however, as this project moves forward, PM-10 conditions should be monitored at the final sites. These pollutants can create serious health issues particularly for sensitive populations and mitigation can be very costly.

V. Nine industrial facilities were identified in the final evaluation region ranked in the top 25 producers of volatile organic compound emissions: five in Warren County, two in Leflore County, one in Panola County, and one in Sunflower County. Communities with a number of industries exceeding the VOCs emissions may be required to reduce emissions from these existing companies

in order to allow for new emissions for a new facility such as an oil refinery that would produce additional VOC loads.

VI. Six industrial facilities identified in the final evaluation region ranked in the top 25 producers of nitrogen oxide emissions: two in Warren County, three in Washington County, and one in Bolivar County. To accommodate additional nitrogen oxides emissions, existing industries may be required to reduce their emissions in order to accommodate emissions from a new facility.

VII. There are no identified Superfund Sites in the final evaluation region, and there are no industrial facilities identified as Superfund Sites. As the project moves forward, the final sites should be assessed to clarify the presence of environmental hazards at the site.

VIII. The analysis did not find any non-attainment areas classified in Mississippi, which is a positive for this project.

State of Louisiana

I. There is only one parish (Ouachita Parish) in Louisiana with person-days exceeding the National Ambient Air Quality Standard (NAAQS). Counties that exceed the NAAQS person-day limits have air quality conditions that are considered harmful to certain populations. Securing permitting for an oil refining facility within these counties would be extremely difficult and perhaps impossible under current Environmental Protection Agency guidelines.

II. Only one parish in the final evaluation region, Ouachita Parish, ranked in the top 25 counties for VOC emissions. Ultimately, sites within counties with VOC emissions issues may require additional pollution control requirements for both existing industries and the proposed facility. New technologies and state-of-the-art pollution control equipment should be evaluated.

III. One parish in the final evaluation region, Ouachita Parish, was ranked in the top 18 counties for nitrogen oxide emissions. Ultimately, sites within counties with nitrogen oxide emissions issues may require additional pollution control requirements for both existing industries and the proposed facility. New technologies and state-of-the-art pollution control equipment should be evaluated.

IV. Only two industrial facilities were identified in the PM-10 emissions rankings within the final evaluation region: a company in Ouachita Parish and one in Morehouse Parish. As this project moves forward, PM-10 conditions should be monitored at the final sites. These pollutants can create serious health issues particularly for sensitive populations and mitigation can be very costly.

V. Two industrial facilities were identified in the final evaluation region ranked in the top 25 producers of volatile organic compound emissions: one in Ouachita Parish and one in Morehouse Parish. Communities with industries exceeding the VOC emissions requirement may be subject to reduction of emissions from these existing companies to allow for new emissions from a new facility such as an oil refinery that would produce additional VOC loads.

VI. One industrial facility, in Ouachita Parish, was identified in the final evaluation region

ranked in the top 25 producers of nitrogen oxide emissions. To accommodate additional nitrogen oxide emissions, existing industries may be required to reduce their emissions in order to accommodate emissions from a new facility.

VII. There are no identified Superfund Sites in the final evaluation region, and there are no industrial facilities identified as Superfund Sites. As the project moves forward, the final sites should be assessed to clarify the presence of environmental hazards at the site.

VIII. The analysis did not find any non-attainment areas classified in the final evaluation region in Louisiana, which is a positive for this project.

State of Arkansas

I. There are only three counties in Arkansas with person-days exceeding NAAQS, and none of these counties are within the final evaluation region.

II. There are no counties in the final evaluation region ranked in the top 25 counties for VOC emissions.

III. There are no counties in the final evaluation region ranked in the top 18 counties for nitrogen oxide emissions.

IV. No industrial facility was identified in the PM-10 emissions rankings within the final evaluation region.

V. There are no industrial facilities in the final evaluation region ranked in the top 25 producers of nitrogen oxide emissions.

VI. There are no identified Superfund Sites in the final evaluation region, and there are no industrial facilities identified as Superfund Sites.

VII. The analysis did not find any non-attainment areas classified in Arkansas.

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